CLAIMS

1. An electrolytic capacitor obtained by impregnating a capacitor element with electrolyte solution, wherein the capacitor element is formed by wounding an anode electrode foil and a cathode electrode foil, which are connected to an anodc tab and to a cathode tab respectively, together with intervening a separator, housing the capacitor element in a cylindrical outer case with a bottom, and sealing an open end of the outer case by a sealing member, characterized in that a electrolyte solution containing aluminum tetrafluoride salt is used as the electrolyte solution, and a foil that shows noble electrode potential at least in said electrolyte solution than an electrode potential of the cathode tab is used as the cathode electrode foil.

2. An electrolytic capacitor according to claim 1, characterized in that a foil that a layer of 0.02~0.1μm made of a metal nitride selected from the group consisting of titanium nitride, zirconium nitride, tantalum nitride and niobium nitride or a metal selected from the group consisting of titanium, zirconium, tantalum and niobium is laminated on a surface of the aluminum foil is used as the cathode electrode foil.

3. An electrolytic capacitor obtained by wounding an anode electrode foil provided with an anode leading means and a cathode electrode foil, which is made of aluminum subjected to a chemical treatment, provided with a cathode leading means made of aluminum of more than 99.9% of purity together with intervening a separator to form a capacitor element, impregnating the capacitor element with a clectrolyte solution containing an aluminum tetrafluoride salt, and then housing it in a outer case.

4. An electrolytic capacitor obtained by winding an anode electrode foil, a cathode electrode foil and a separator to form a electrolytic capacitor and impregnating the electrolytic capacitor with a electrolyte solution, and housing it in an outer case, wherein the electrolyte solution containing aluminum tetrafluoride salt is used as said electrolyte solution, and wherein the electrode foil subjected to a phosphate treatment is used as the anode electrode foil and the cathode electrode foil.

5. An electrolytic capacitor according to claims 1 to 4, wherein a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene and divinylbenzene is used as the sealing member.